

SYNTHESIZER

**KORG POLYPHONIC
ENSEMBLE**

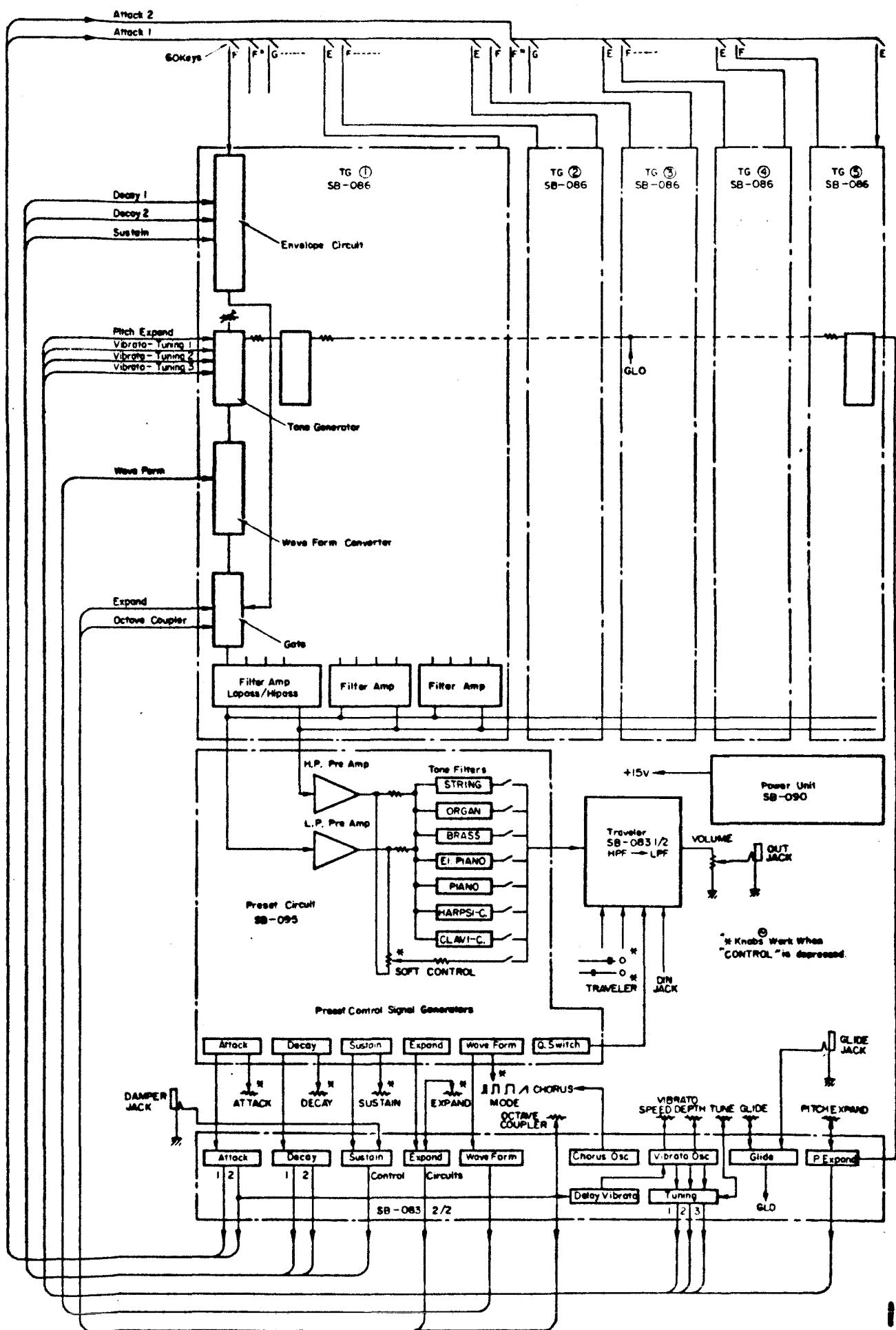
1000

SERVICE MANUAL

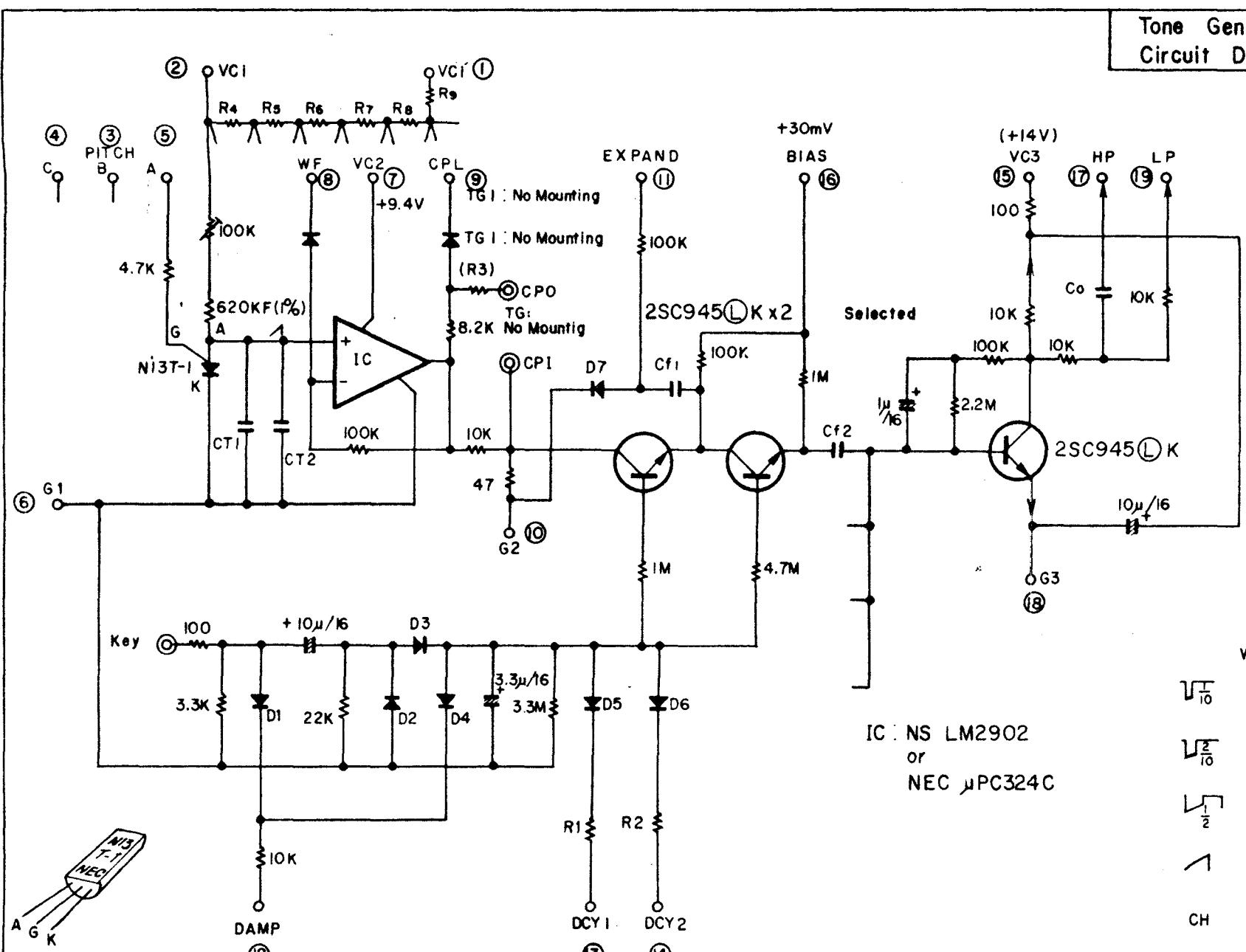
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KEIO ELECTRONIC LAB., CORP.
TOKYO, JAPAN

BLOCK DIAGRAM



Tone Generator Circuit Diagram



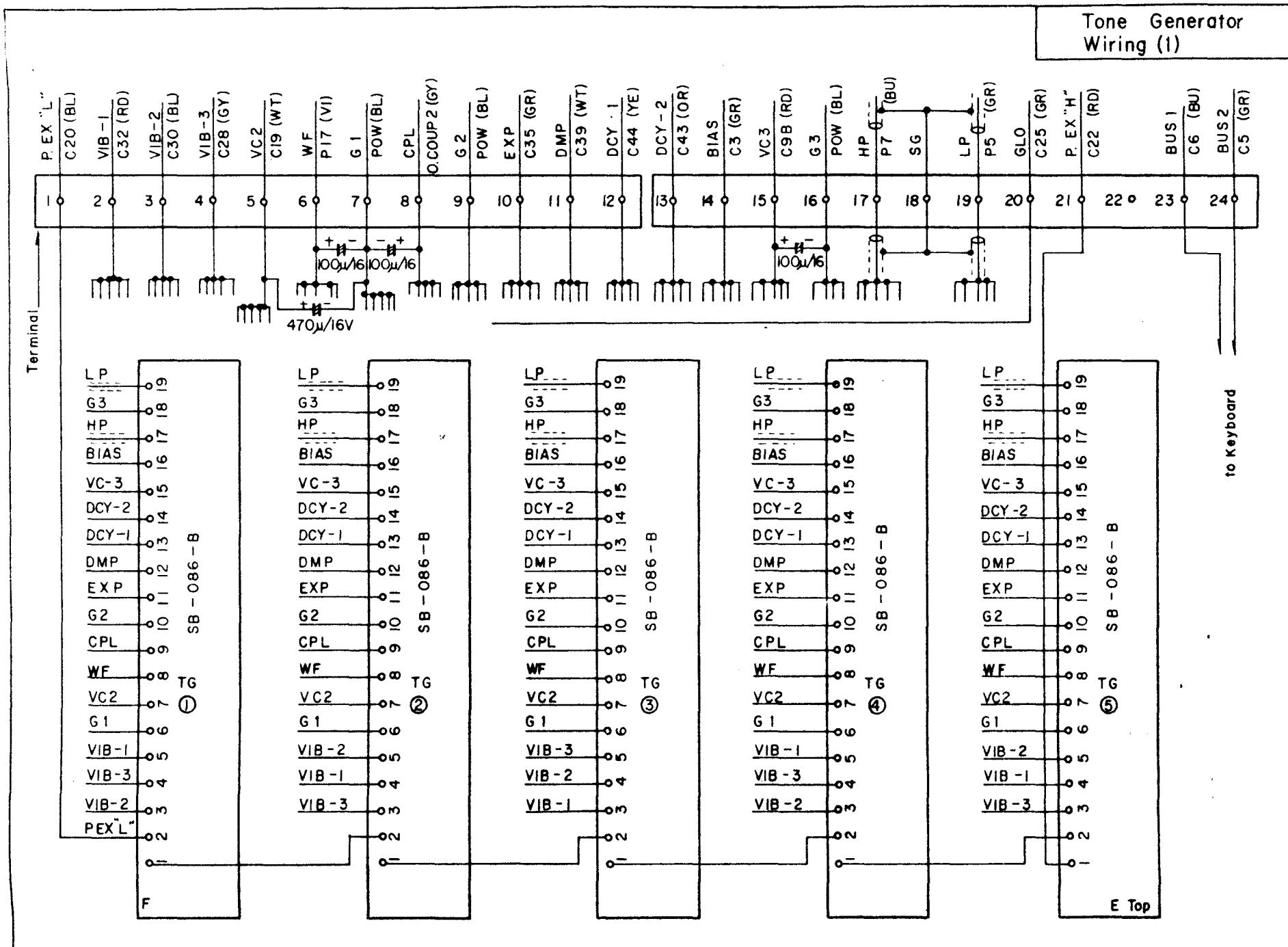
IC : NS LM2902
or
NEC μPC324C

WF Voltage
1.25V
2.25V
4.5V
7.7V
1.5 ~ 4.7V

	NO. 1		NO. 2		NO. 3		NO. 4		NO. 5	
F		27.000 20.000		22.000 1.500		11.000 680		5.600 220		2.700 150
F#		24.000 20.000		22.000		11.000		5.100 330		2.700
G		27.000 15.000		20.000 1.000		10.000 470		5.100 100		2.400 150
G#		27.000 12.000		20.000		9.100 680		4.700 220		2.400
A		27.000 10.000		18.000 680		9.100 150		4.300 330		2.200 100
A#		27.000 8.200		16.000 1.500		8.200 560		4.300 4		2.000 150
B		27.000 6.200		16.000 680		8.200 100		3.900 220		2.000
C		27.000 4.300		15.000 680		7.500 330		3.900		1.800 100
C#		27.000 2.700		13.000 1.800		6.800 560		3.600		1.800
D		27.000 1.000		13.000 1.000		6.800 150		3.300 150		1.600 100
D#		24.000 2.200		13.000 150		6.200 330		3.000 220		1.600
E		24.000 1.000		12.000 470		6.200		3.000 47		1500P

Tone Generator CR Chart

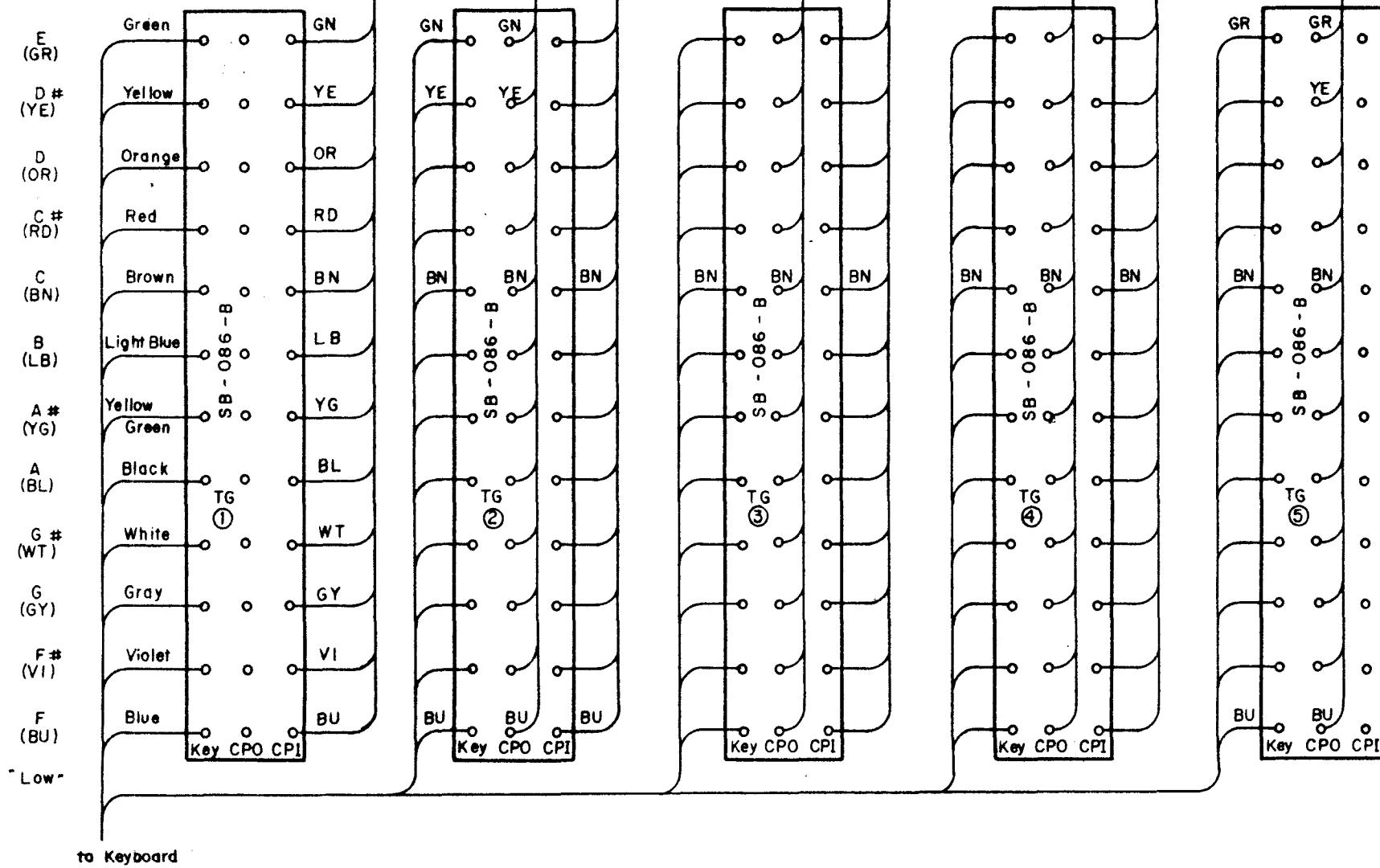
	R1	R2	R3	R4 R5 R4 R7 R8 R9		Cf 1	Cf 2	Co		
Low	NO 1	6.8K	220K		20		0.047	0.056	0.18	
					20		0.047	0.047	0.15	
		6.8K	220K		20		0.047	0.039	0.12	
					20					
	NO 2	5.6K	180K	8.2K	10		0.047	0.033	0.1	
					10		0.047	0.027	0.082	
		5.6K	180K	8.2K	10		0.047	0.022	0.068	
					10					
					10					
NO 3	4.7K	150K	8.2K	J		0.047	0.018	0.056		
						0.047	0.015	0.047		
		4.7K	150K	J		0.047	0.012	0.039		
	NO 4	3.9K	120K	8.2K	10		0.047	0.01	0.033	
					10		0.047	0.01	0.027	
		3.9K	100K	8.2K	10		0.047	0.01	0.022	
					10					
		3.9K	100K	12K	10					
					10					
					10					
NO 5	3.3K	68K	18K	20		0.047	0.01	0.018		
						0.047	0.01	0.015		
		3.3K	47K	20		0.047	0.01	0.012		
	3.3K	47K	82K	20						
High	J: Jumper									

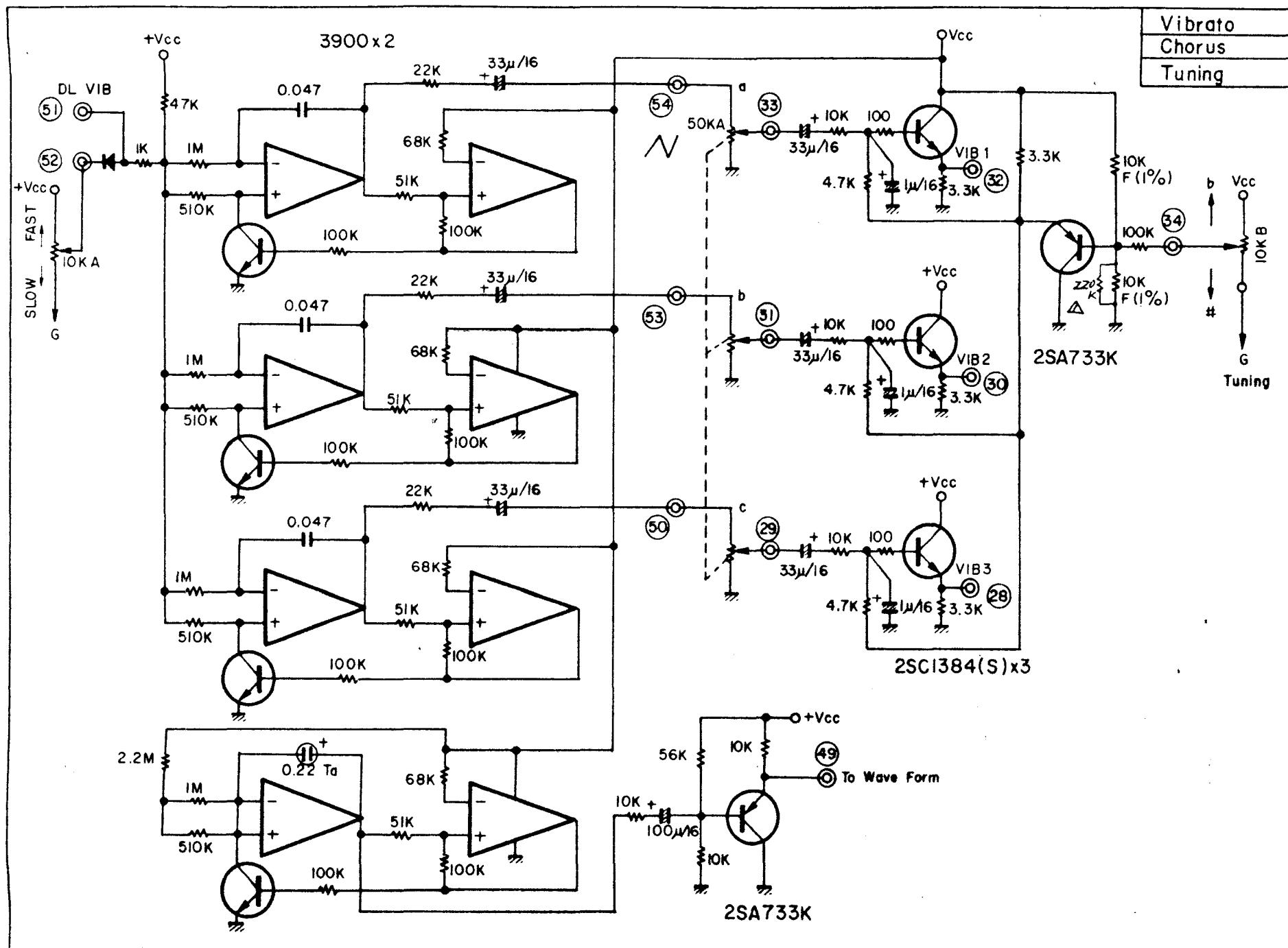


Tone Generator
Wiring (2)

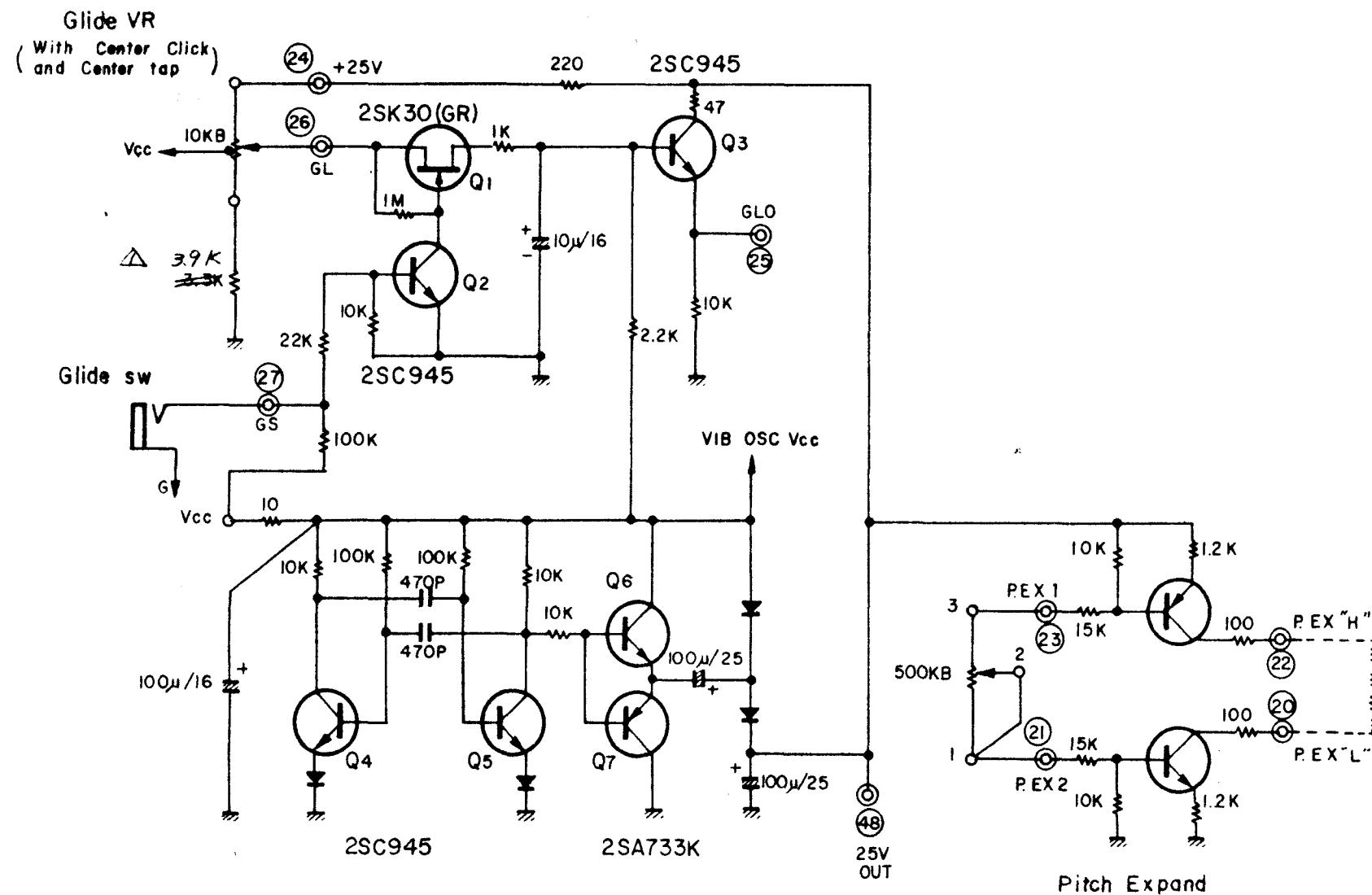
Coupler Wiring

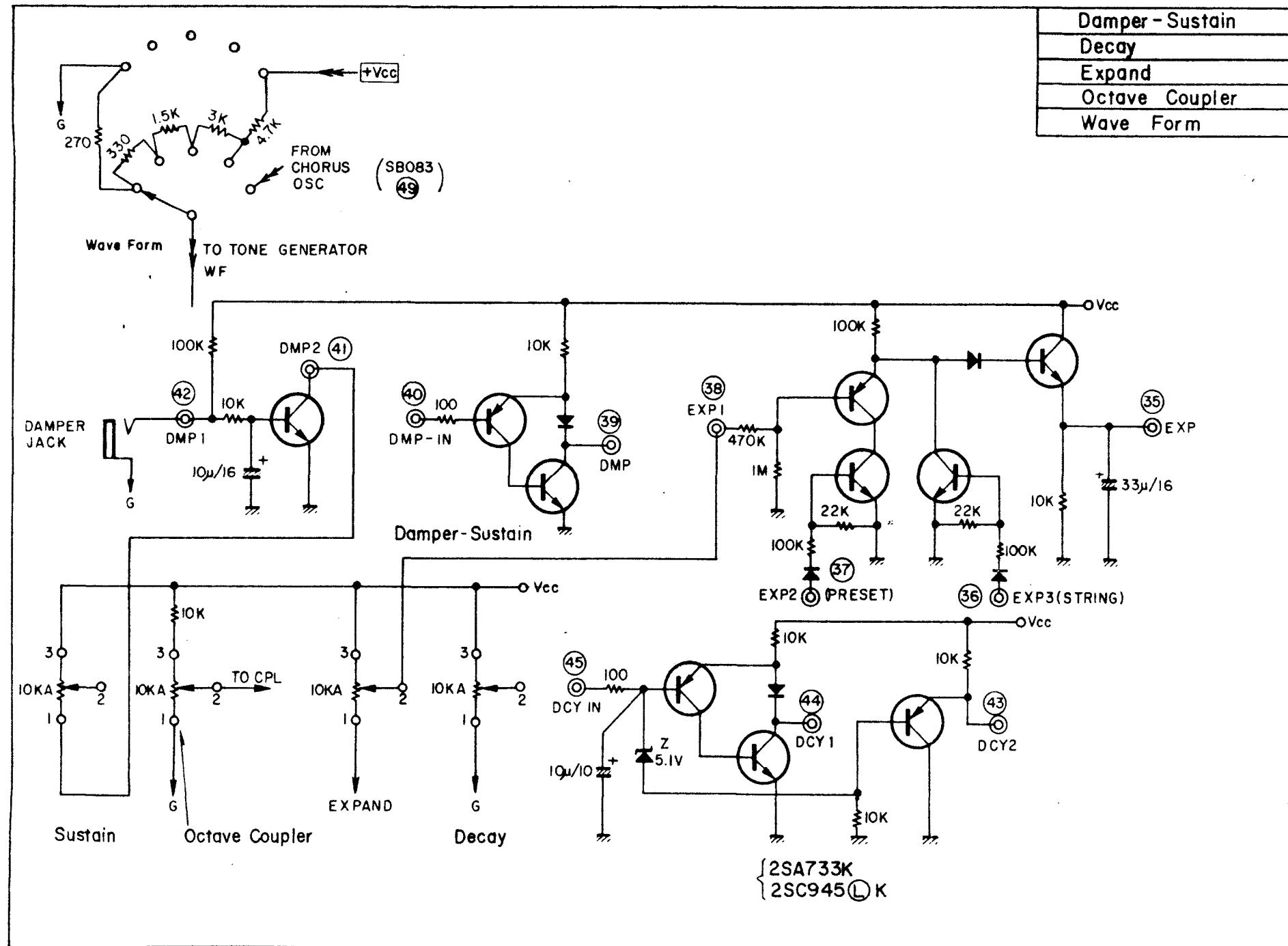
"High"
E Top

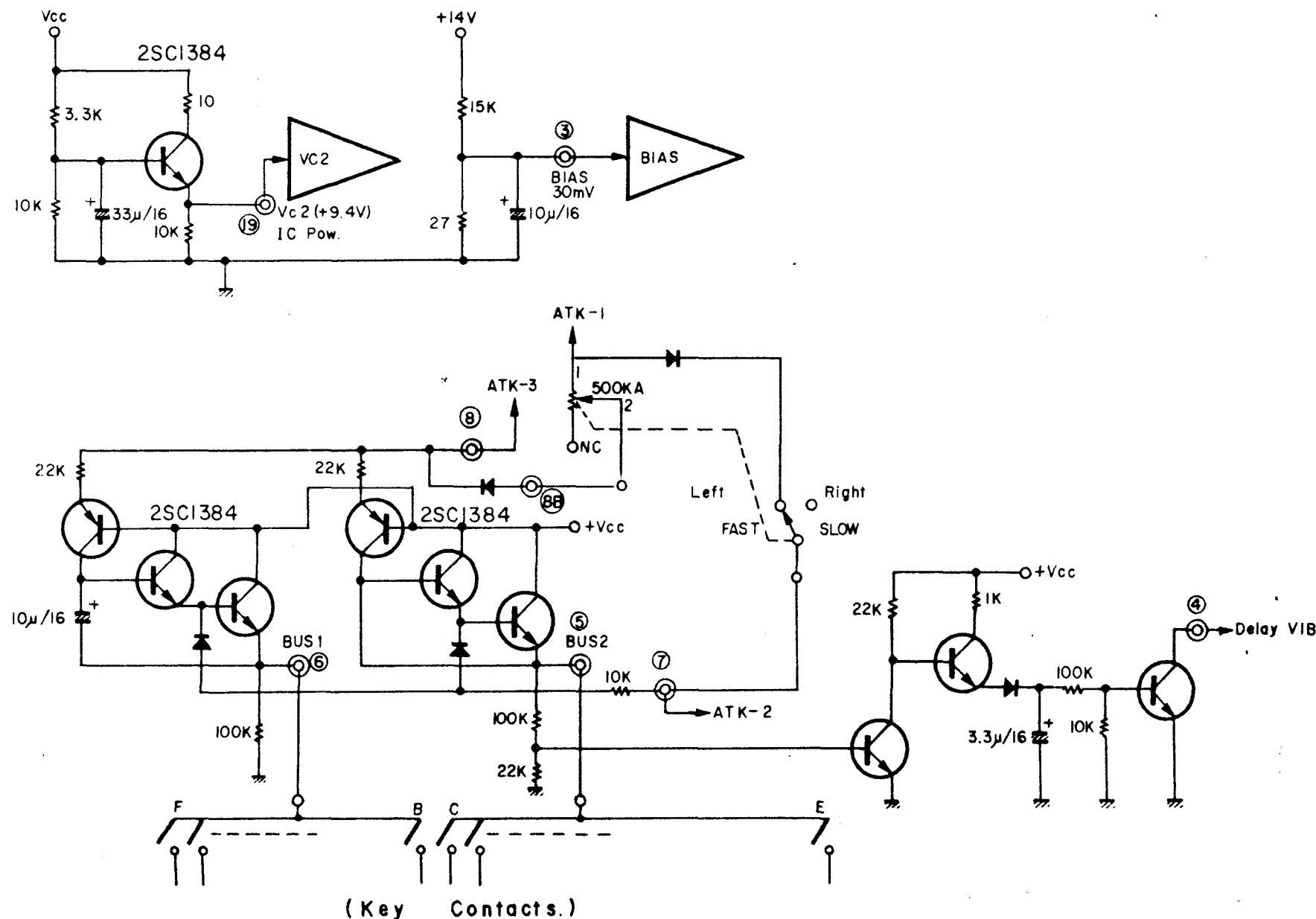




Glide
Pitch Expand







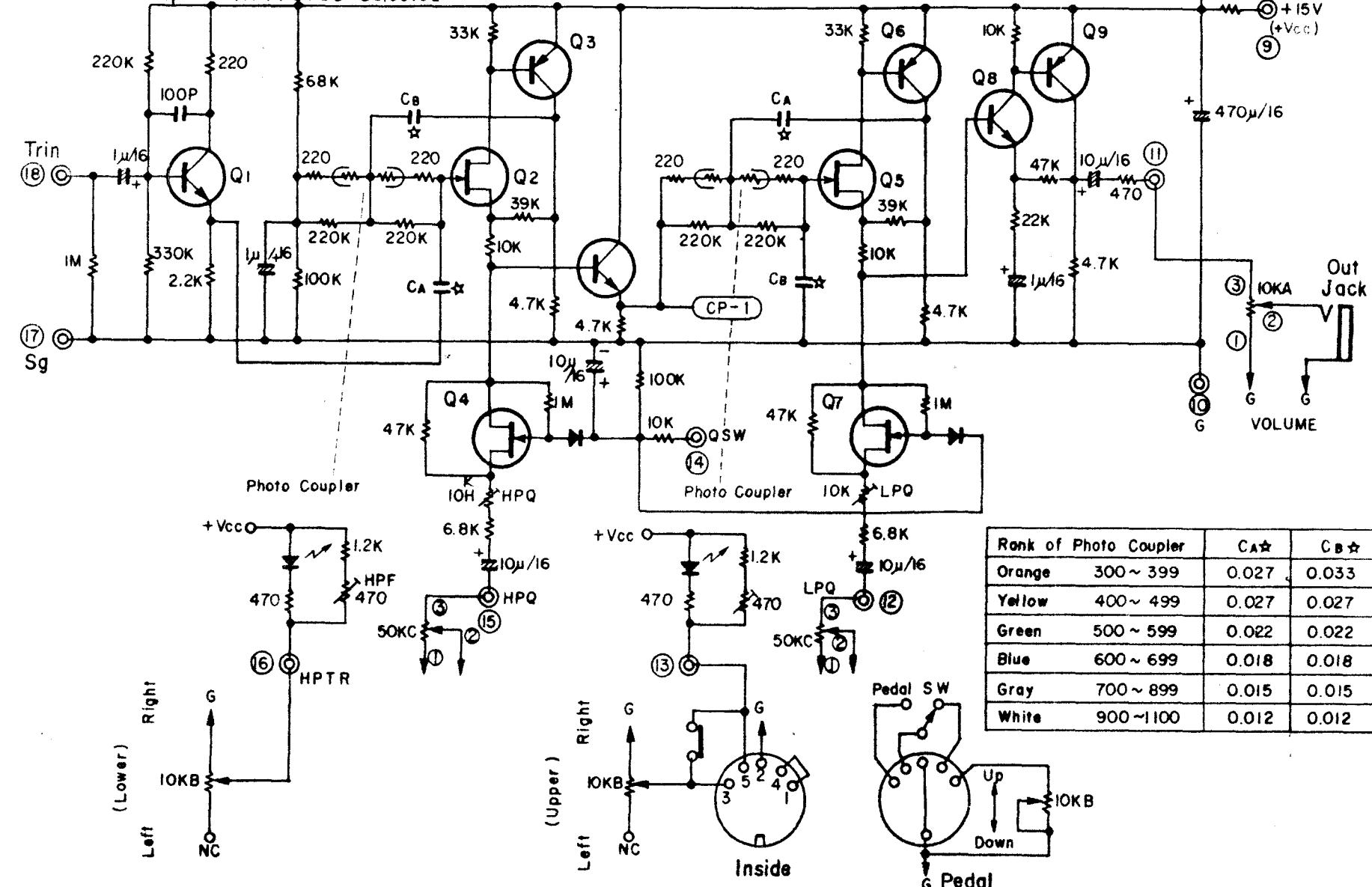
Traveler

2SC ---- 2SC945 (L) K

2SA ---- 2SA733K

FET ---- 2SK30 (O)

Cds Photo Coupler HTVP873D Selected



P : Preset
SB-095-D

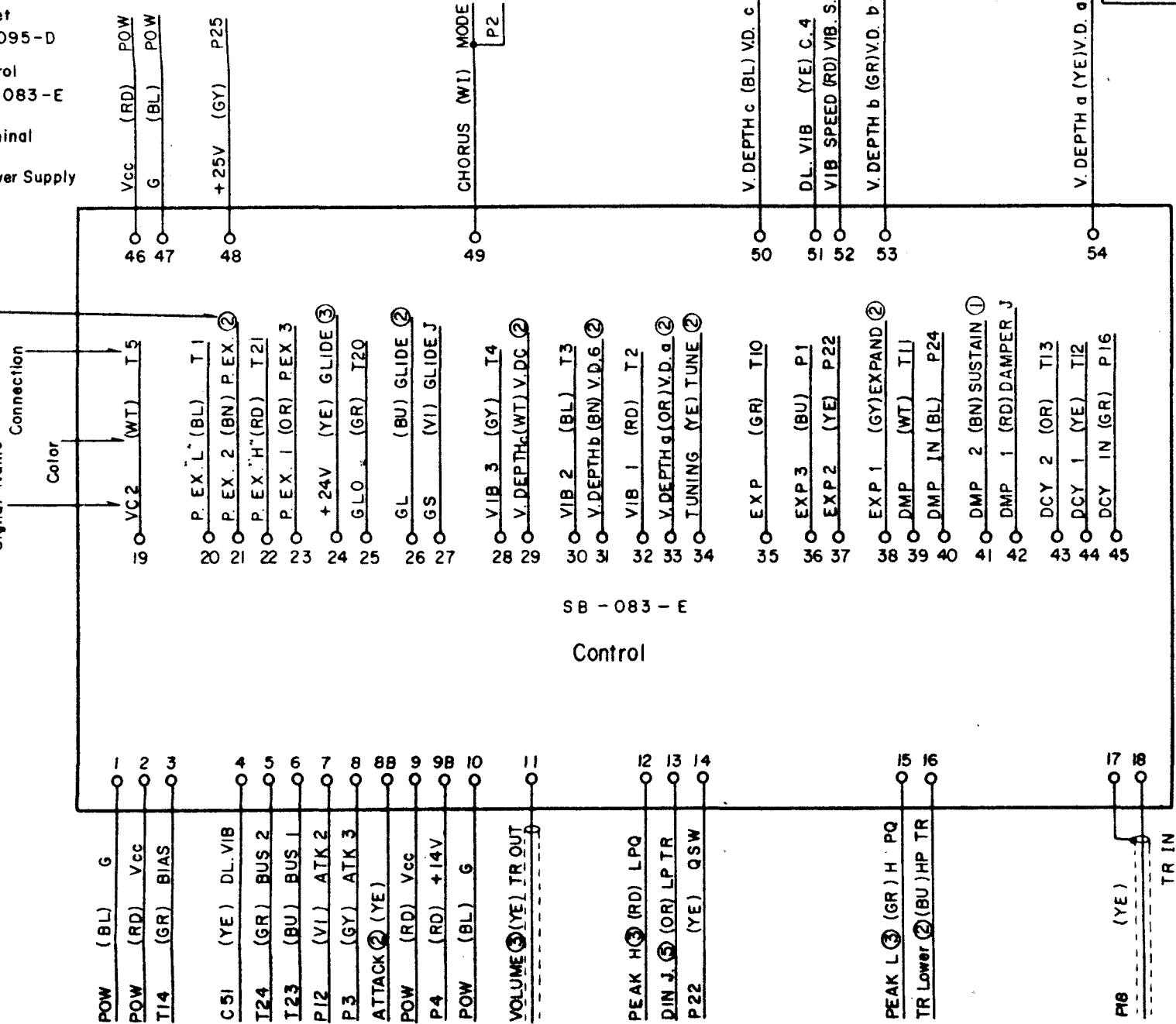
C : Control
SB-083-E

T : Terminal

POW: Power Supply

2 means No2 terminal of V.R.

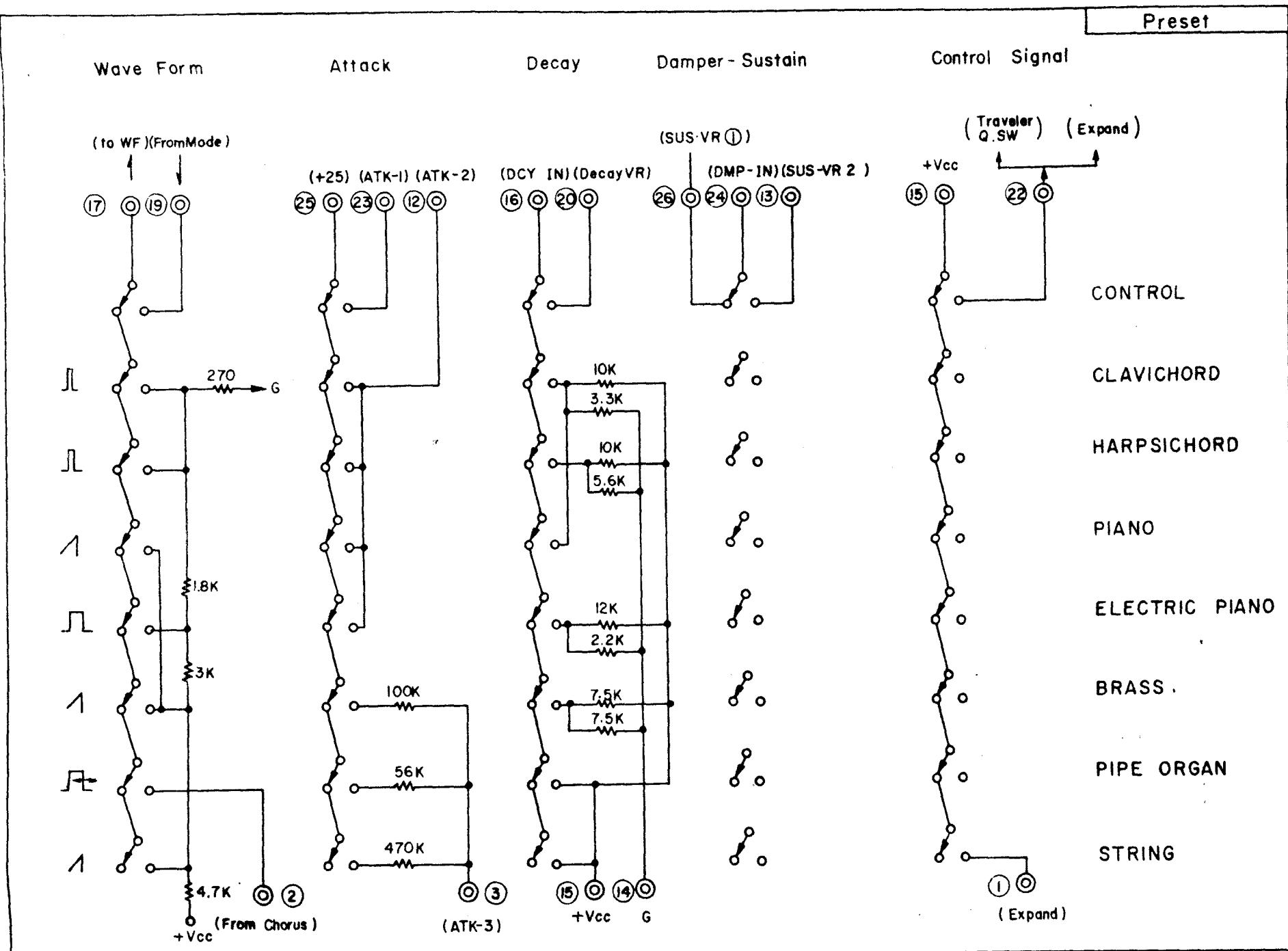
Signal Name Connection

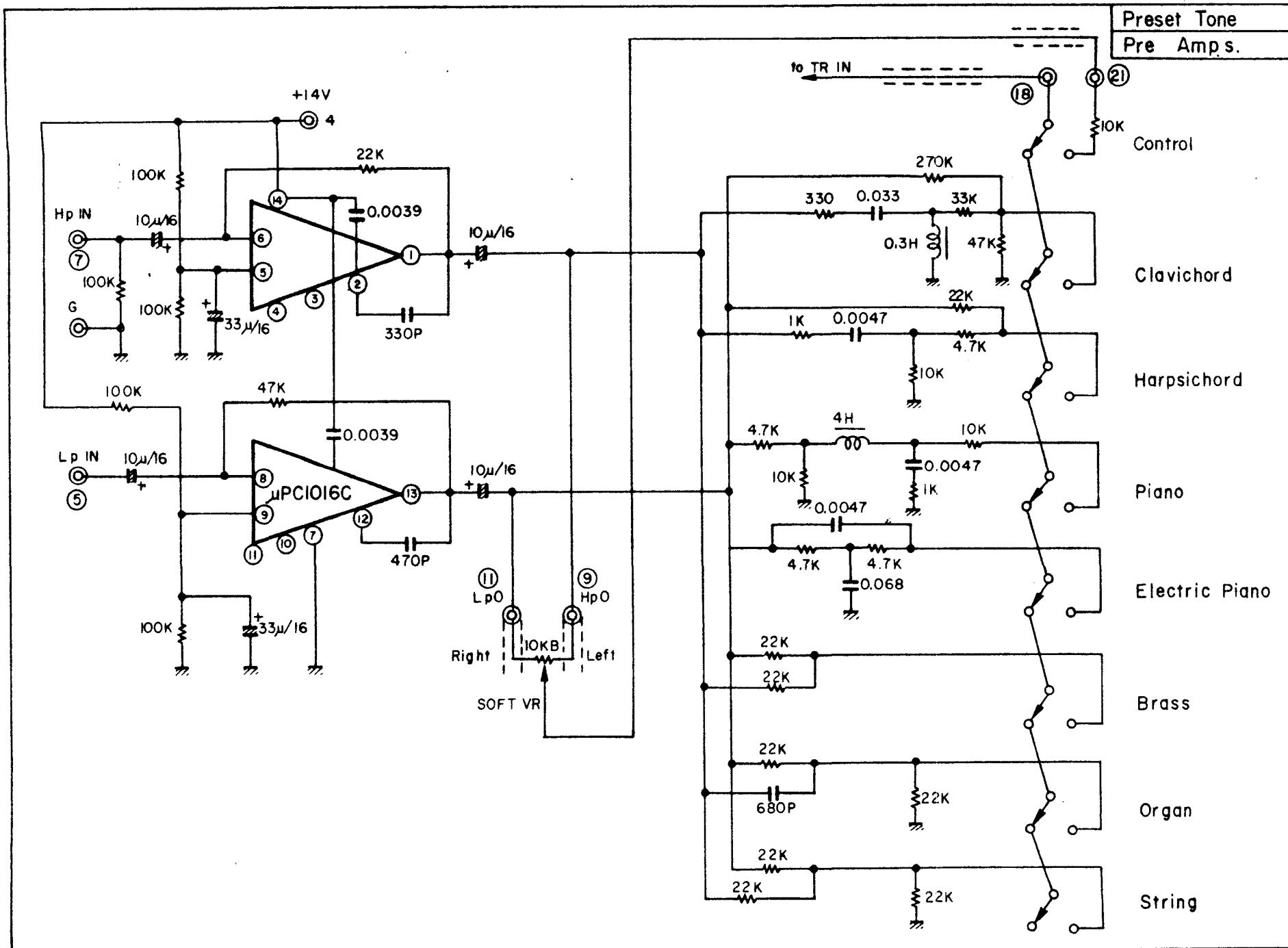


Control Wiring

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Preset





Notice

Preset Wiring

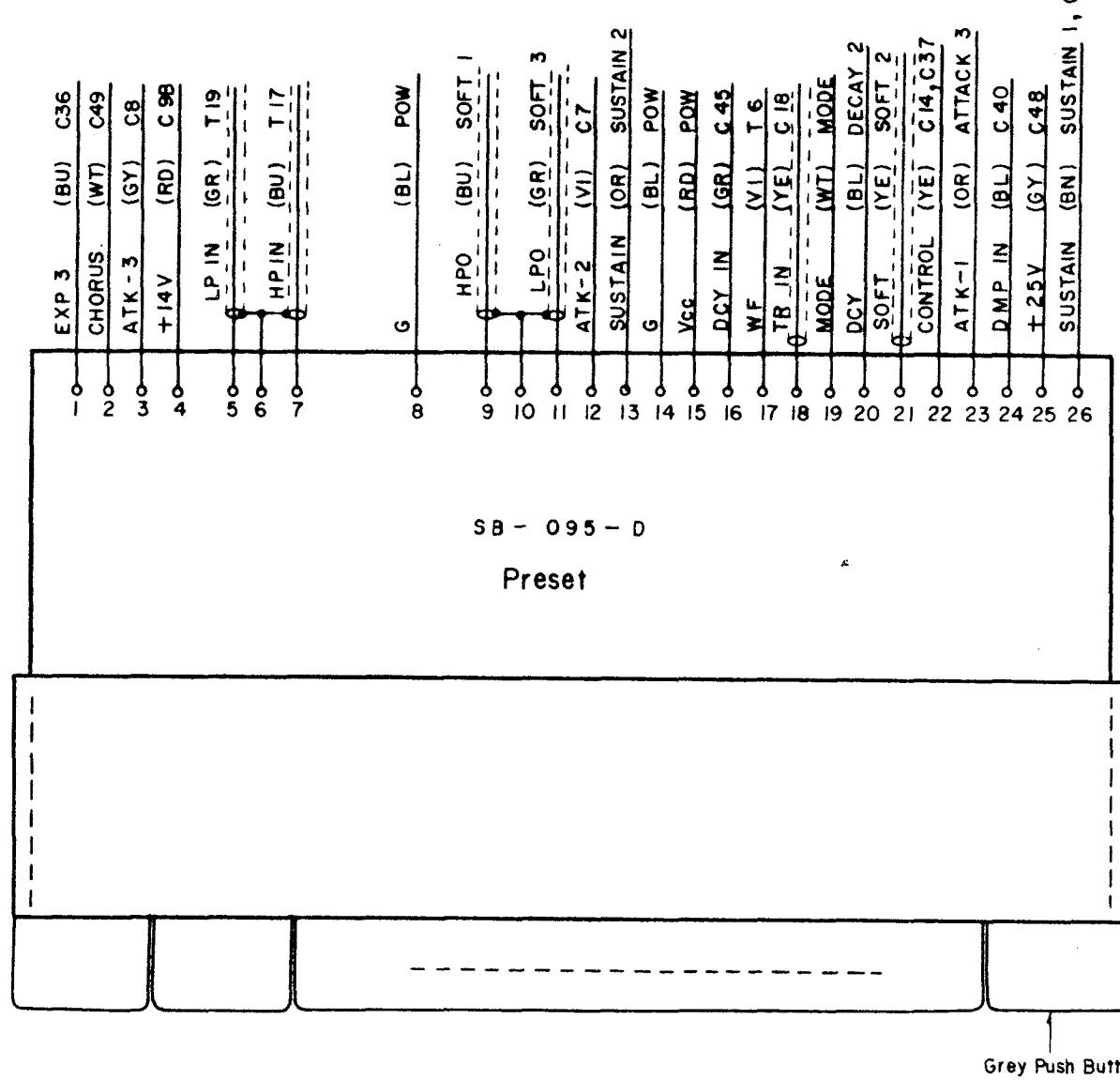
P : Preset
SB-095-D

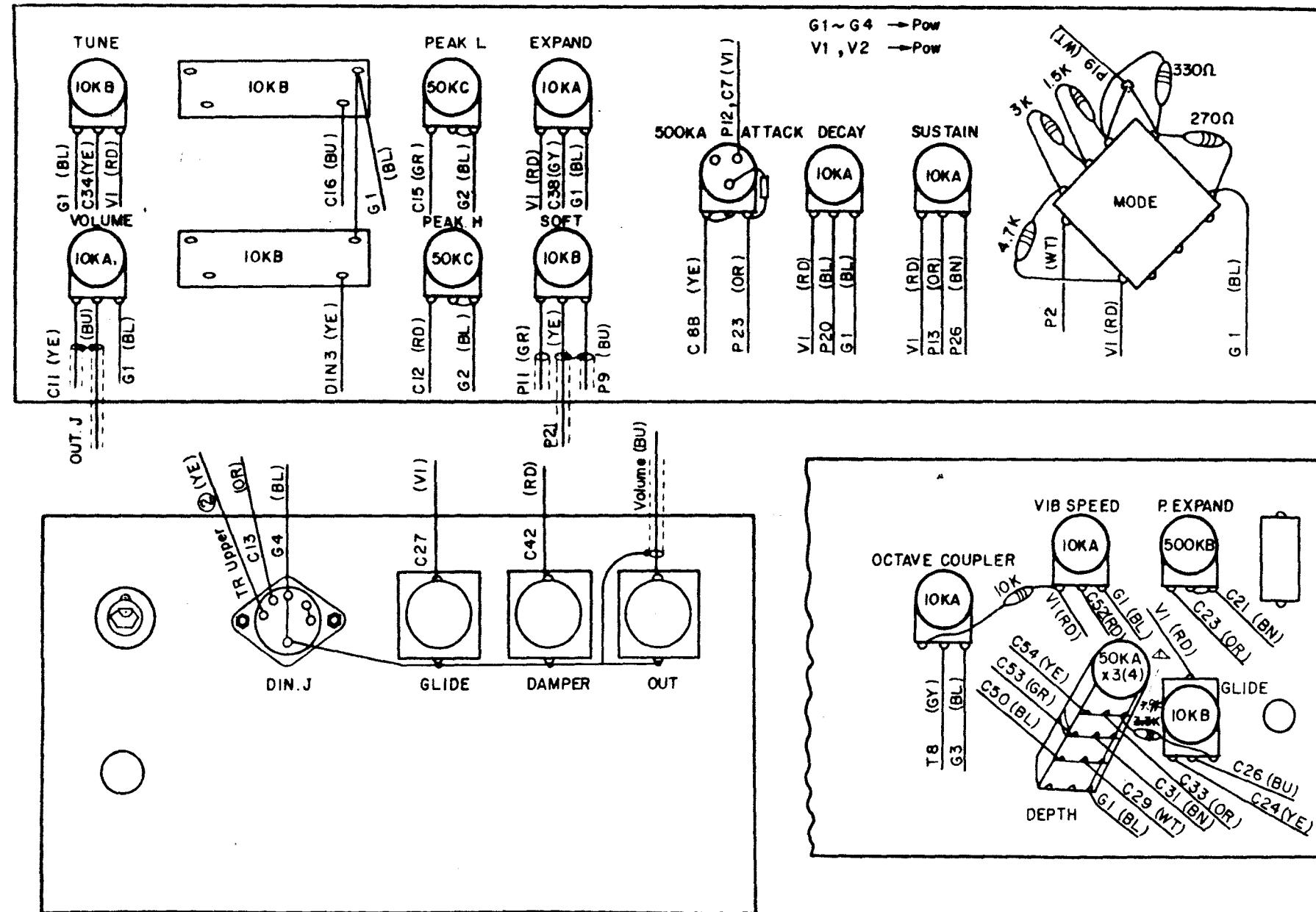
C : Control
SB-083-E

T : Terminal

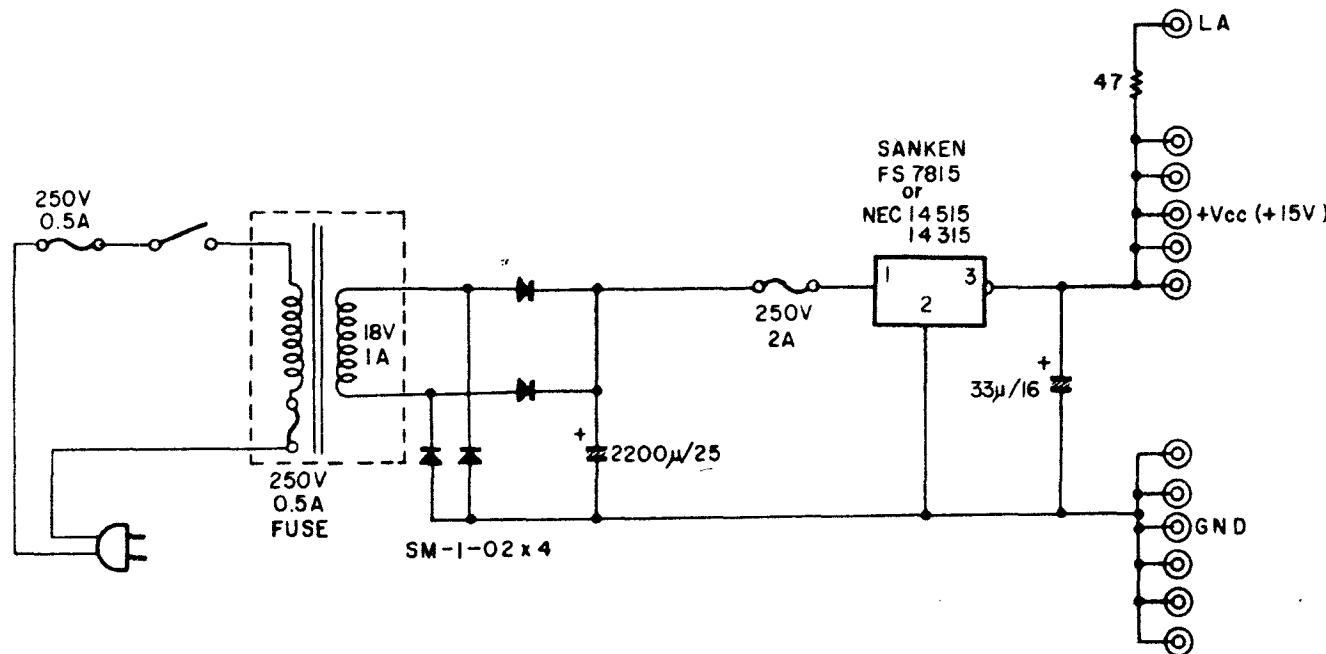
POW: Power Unit

BN : Brown
RD : Red
OR : Orange
YE : Yellow
GR : Green
BU : Blue
VI : Violet
GY : Gray
WT : White
BL : Black
YG : Yellow Green
LB : Light Blue



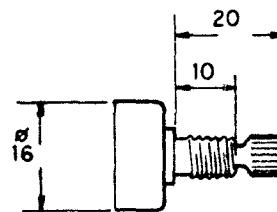


Power Supply



1	VOLUME	16Ø	10KA
2	TUNE	16Ø	10KB
3	PEAK H	16Ø	50KC
4	PEAK L	16Ø	50KC
5	SOFT	16Ø	10KB
6	EXPAND	16Ø	10KA
7	ATTACK	16Ø with Switch	500KA
8	DECAY	16Ø	10KA
9	DAMPER	16Ø	10KA
10	COUPLER	16Ø	10KA
11	VIBRATO DEP.	16Ø 3-Ganged	50KA
12	VIB SPEED	16Ø	10KA
13	GLIDE	16Ø with Center Click and Center Tap	10KB
14	PITCH EXPAND	16Ø	500KB
15	TRAVELER(Upper)	60mm	10KB
16	TRAVELER(Lower)	60mm	10KB
17	MODE	2-4-5 Rotary Switch	ESR - N245K20
18	PRESET SWITCH	8 Push Buttons	MBS - 086 - e
19	POWER SWITCH		MIYAMA 63
20	PILOT LAMP	RED	BQ 054 - 32715A

Variable Resistor



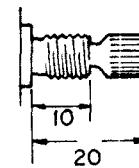
18 Serrations



Variable Resistor
(Sliding Type)



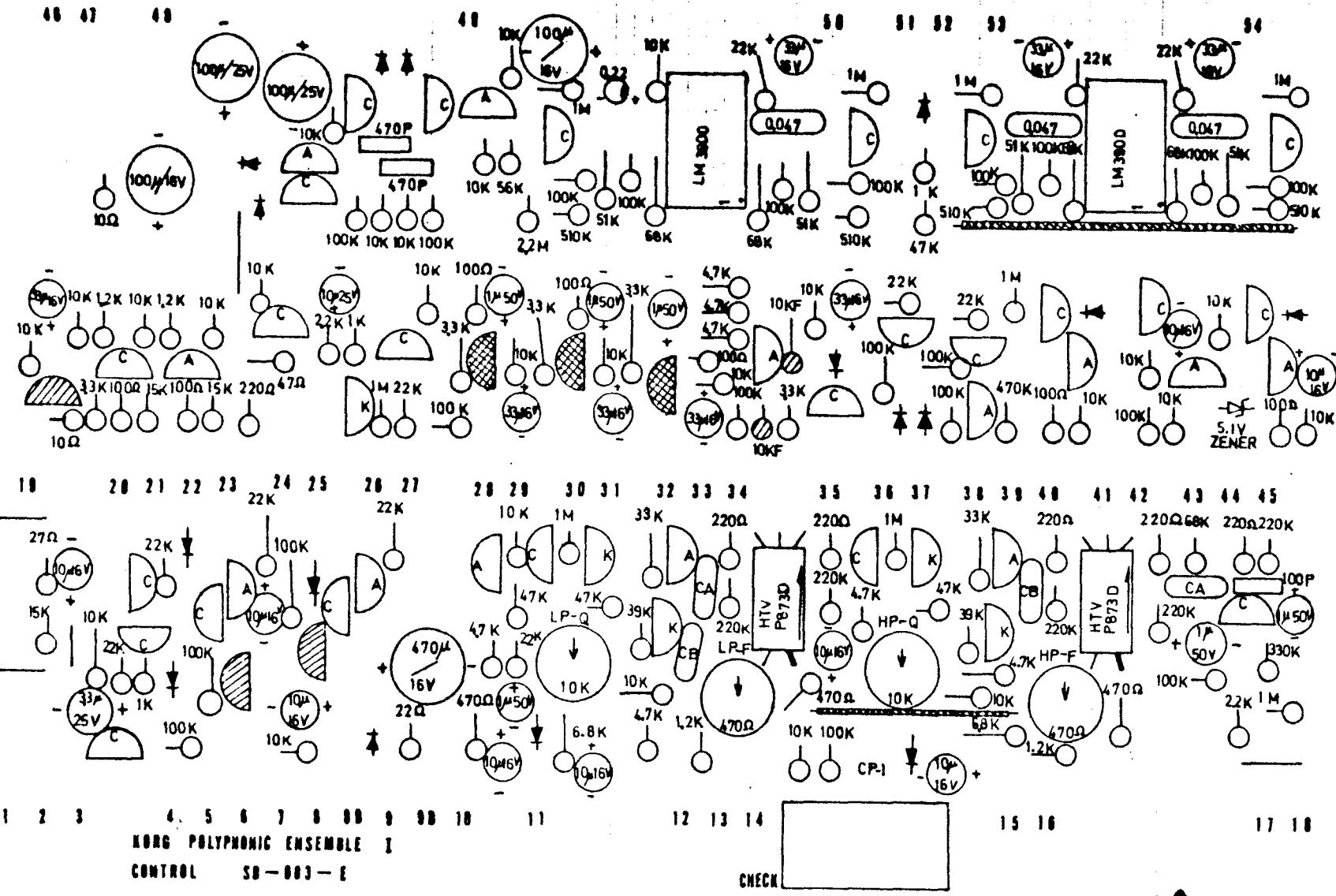
Rotary Switch

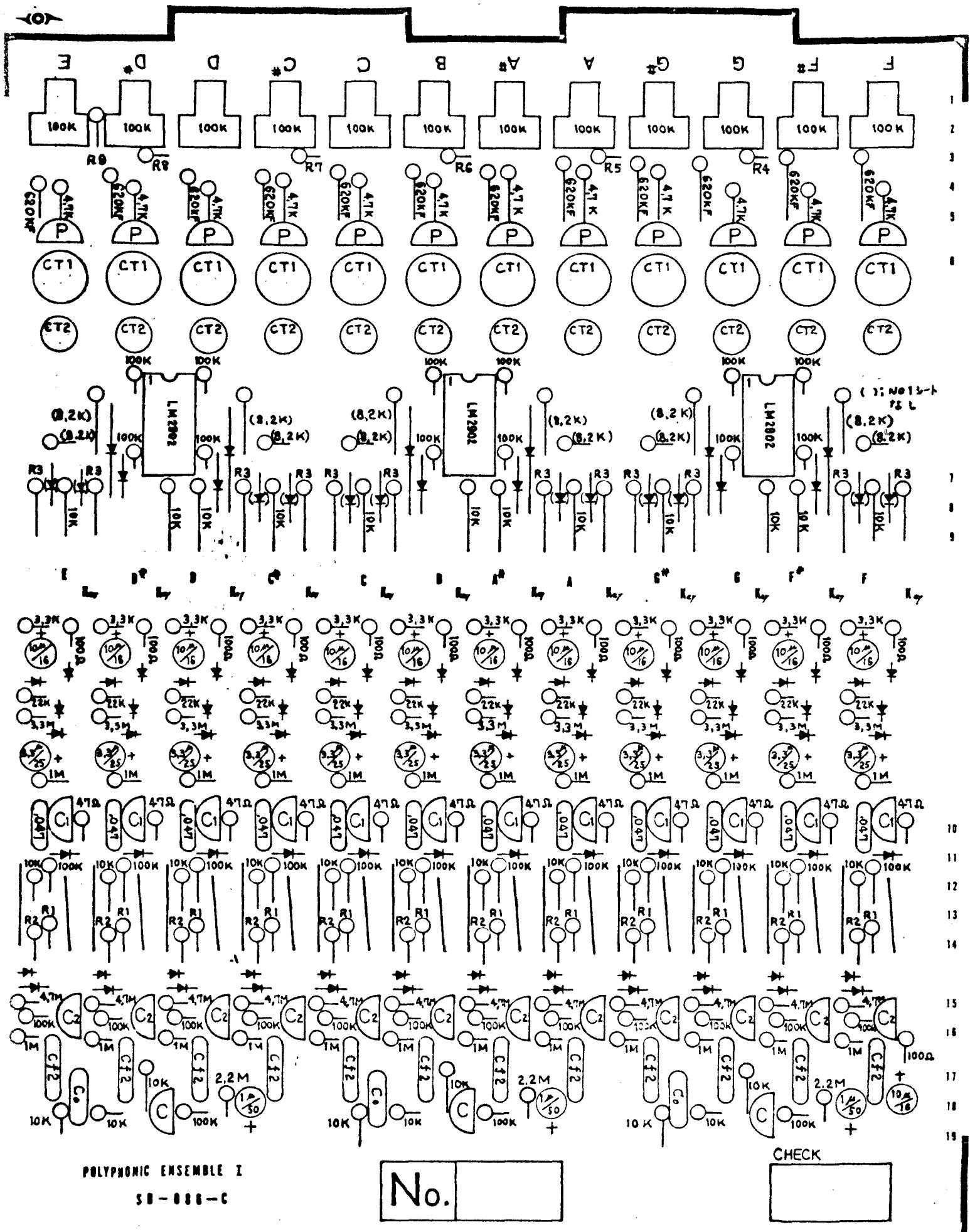


18 Serrations



C845 0K C1384S K30GR
 A733 K C1386S Selected





No.

CHECK

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